CLAIMS

1. Method for preparing a coated particulate waste material, comprising the steps of:

   (a) providing a particulate waste fraction with an average particle size of between 0,1 and 5,0 mm, and

   (b) applying a coating material to said particulate waste fraction, characterized in that, said coating material comprises at least one polymeric compound and a silane coupling agent and the silane coupling agent is present in the coating material in a concentration of between 1,0 and 10,0 wt.% based on the total weight of the coating material.

2. Method according to claim 1, characterized in that, the particulate waste fraction is obtained by separating a particulate waste material.

3. Method according to claim 1 or 2, characterized in that, said particulate waste fraction has an average particle size of between 0,5 and 4,0 mm.

4. Method according to any of the previous claims 1-3, characterized in that, said particulate waste fraction is a contaminated waste fraction.

5. Method according to any of the previous claims 1-4, characterized in that, said applying a coating material of step (c) comprises:
   (i) providing the particulate waste fraction,
   (ii) providing the coating material,
   (iii) homogeneously distributing said coating material onto the surface of said particulate waste fraction,
   (iv) fixating said coating material onto said surface, thereby obtaining the coated particulate waste material.

6. Method according to any of the previous claims 1-5, characterized in that, said particulate waste fraction and coating material are provided in a ratio of between 100:1 to 100:25 by weight, preferably of between 100:2 to 100:20 by weight.

7. Method according to any of the previous claims 1-6, characterized in that, said at least one polymeric compound is selected from the group of monomers, dimers, oligomers, polymers, copolymers, cross-linking agents, or combinations thereof.

8. Method according to any of the previous claims 1-7, characterized in that, said silane coupling agent is a compound with general formula $Y\text{-}R\text{-}Si\text{-}(X)_3$, wherein Y-R- is an organic moiety comprising a functional group Y that links with organic materials, and X is a functional group that undergoes hydrolysis to a silanol group.

9. Method according to any of the previous claims 5-8, characterized in that, said distributing of step (iii) comprises spraying, submerging, dipping, or combinations thereof.

10. Method according to any of the previous claims 5-9, characterized in that, said fixating of step (iv) comprises a chemical reaction, drying, heating, irradiation, cross-linking, or combinations thereof.

11. Method according to any of the previous claims 5-10, characterized in that, said particulate waste fraction is selected from the group of wood ash, bottom ash, fly ash, or combinations thereof.

12. Coated waste particle, said waste particle comprising a waste material core, and a coating surrounding said waste material core, wherein said waste material core has an average particle size of between 0,1 and 5,0 mm, characterized in that, said coating comprises at least one polymeric compound and a silane coupling agent, and the silane coupling agent is present in the coating in a concentration of between 1,0 and 10,0 wt.% based on the total weight of the coating.

13. Coated waste particle according to claim 12, characterized in that, said waste material core has an average particle size of between 0,5 and 4,0 mm.

14. Coated waste particle according to claim 12 or 13, characterized in that, said coating has an average layer thickness of between 0,05 and 1,00 mm.

15. Coated waste particle according to any of the claims 12-14, characterized in that, said at least one polymeric compound comprises monomers, dimers, oligomers, polymers, copolymers, cross-linking agents, or combinations thereof.

16. Coated waste particle according to any of the claims 12-15, characterized in that, said waste material core comprises wood ash, bottom ash, fly ash, or combinations thereof.

17. Use of a coated waste particle according to any of the claims 12-16, as a replacement for sand in building materials.

18. Building material, comprising one or more coated waste particles according to any of the claims 12-16, whereby said coated waster particles are bound in the building material by means of a binding agent.